Oregon Business Review

VOL. XVI JULY 1957 No. 7

Looking Ahead in Douglas-Fir Forestry

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Bureau of Business and Economic Research

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The year 1956 was another busy year in Douglas-fir forestry. It saw a near-record timber harvest, an excellent forest-fire record, a revival of direct seeding, a near-record year in tree planting, an all-time high for brush control, the greatest number of industrial foresters in the woods, an increasing shortage of trained foresters, better utilization in both woods and plant, more tree farms certified and more tree seed collected. In short, it was the busiest forestry year in the 130-year history of the Douglas-fir industry.

In a year of soft markets and lower prices, these facts are most significant because they prove without a doubt that forestry is here to stay.

The 1956 protection record against fire was outstanding. A total of 2,020 fires burned over only 14,850 acres. What a difference from the days within my memory when hooktenders assigned chokermen and gandy dancers "to watch fires" instead of putting them out. Not only has the industry responded to the necessity for more adequate protection against fire; but public response to the pleas of Keep Oregon and Washington Green has been most encouraging. No longer do we "watch" fires—we prevent them. When we fail there, we do everything possible to put them out speedily, regardless of cost. We have not licked the forest-fire problem, but we have certainly demonstrated that we can handle it.

Our other major protection problem—insects—is now less critical than any time in the last decade. No longer is the spruce budworm, which spilled over the Cascades into Western Oregon in 1948, a grim threat to our region's forests. The gigantic Douglas-fir beetle epidemic which followed the December 1951 hurricane in the Oregon Coast Range has practically disappeared. Salvage logging of the killed trees is reclaiming the values. Oregon State College scientists, when they wanted some Douglas-fir bark beetles to use for recent experiments, had to breed them because there weren't enough available in the woods!

The one black spot in the insect picture is the balsam wolly aphid, more commonly called Chermes, which has seriously infested great stands of Silver fir, principally around Mt. St. Helens in southwestern Washington. It is also current in the northern Oregon Cascades and at several locations in the Oregon Coast Range. This imported European pest is a tree killer beyond compare. It poses the two-fold problem of salvaging some 5 billion feet of mature Silver fir, use of which is limited largely to wood pulp, and what to do about reproducing the infested areas as they are salvage logged. The Northwest Forest Pest Action Council has appointed a committee to get the interested parties together for cooperative solution.

The most significant economic forestry fact of our lifetime is the tremendous revolution in our wood use since the end of World War II. In 1956 the wood-pulp segment of our industry gathered together, from several hundred different locations, wood chips and cull and salvage logs to the tune of about 1.25 billion feet log scale for conversion into the hundreds of high-grade pulp and paper products it manufactures. This means we saved 1.25 billion board feet of timber for future harvest. At no time in our history has wood utilization been as good as it is today. Better utilization has added no less than 100 billion board feet to our region's timber inventory. This stretches out our timber supply while we are developing the timber age classes on our tree farms and public forests necessary for continuous forestry.

After being doubtful whether we would have a good seed year in 1956, because of the 1955 freeze, I am frank to admit that my prediction was haywire—we had a bumper crop in many locations. Regionwide, it was certainly the best crop since 1949 and saved our bacon for nursery and direct seeding purposes.

More cones were collected and seed processed in the region in 1956 than ever before. You could hardly go anywhere in the fall without running into cold decks of cone-filled sacks along the road, kids up in trees picking cones, women looking for squirrel caches, and signs offering to buy cones on trees, stumps, and utility poles along every county road.

Of course, the most important part of this lush seed crop is the billions of tiny seeds disseminated naturally in the woods. Their results are beginning to pop their heads through the ground at this writing by the tens of millions every place in our region. Most foresters haven't given up the idea that natural reproduction, by planned timber harvesting and good production, will continue to be our main means of reforestation. Planting, seeding, and brush control are all artificial methods. While important, they must always be recognized as corrective measures.

One of the debit items on our forestry ledger for 1956 was the damaging results of the November 1955 freeze in most of our region north of Salem. Millions upon millions of natural and planted trees were killed outright and trees as old as 50 to 60 years had their tops badly killed. In some areas plantations of less-hardy species, like Port Orford cedar, were wiped out. No one knows precisely what the losses were; but it is my estimate that, because of the rot which will show up in the older trees which were damaged, the medium and well-stocked stands of young trees whose stocking was substantially reduced, the investments in planting and seeding which were wiped out, the slowing

OREGON ECONOMIC STATISTICS

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Oregon Business Review

VOL. XVI EUGENE, OREGON, JULY 1957 No. 7

Bureau of Business Research, School of Business Administration
University of Oregon
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Published monthly. Entered as second-class matter, August 10, 1948, at the postoffice at Eugene, Oregon, under the act of August 24, 1912. Persons wishing to receive the *Review* regularly should address requests to the editor. There is no subscription charge.

of timber growth which was apparent in 1956 and may be again this year, the freeze cost tree farmers in the neighborhood of $200 million.

As a result of the good 1956 seed crop and technical improvement in rodent repellents, direct seeding was revived at a much greater scale than for nearly a decade. To make seeding effective in some areas, tree farmers had to spend heavily for brush control. It is estimated that nearly 20,000 acres were treated with chemicals or by mechanical means during the year. No one used to think that brush control was economically practical, but the economics of paying taxes and other carrying charges on vine maple and other useless brush has now convinced many tree farmers that the relatively high costs of brush eradication to release already established conifers or to prepare suitable seed beds for direct seeding or areas for planting are justified. We are now reclaiming thousands of acres of brush and replacing it with a new timber crop of our own making.

The year 1956 marked the fifteenth anniversary of the Industrial Forestry Association's West Coast tree-farm program. It was a record year for tree-farm certifications. One hundred managed private forests totaling 185,334 acres were added to the roster. It is significant that of these 100 new tree farms, 87 are owned by other than industrial operators—mostly by farmers, investors, and others who want to manage their forests for continuous income. Seven tree farms were cancelled during the year, mainly because of change of ownership.

At year's end there were 397 West Coast tree farms totaling 4,831,677 acres, or two-fifths of all the private forest land in western Oregon and Washington. After fifteen years it is interesting to look at the growth of tree farms year by year, as we have interested more people and engaged their active participation (see Table 1).

TABLE 1. WEST COAST TREE FARM ACREAGE BY YEARS

Year (As of Dec. 31)	Number	Acreage	Net Gain During Year	No. Certified During Year	No. Cancelled During Year
1941	1	120,000	120,000	1	–
1942	20	1,620,533	1,500,533	19	–
1943	23	1,832,130	211,597	3	–
1944	51	2,044,171	212,041	28	–
1945	58	2,046,655	2,484	7	–
1946	72	2,196,830	150,175	18	4
1947	78	2,524,693	327,863	6	–
1948	89	3,014,141	489,448	11	–
1949	100	3,270,692	256,551	13	2
1950	104	3,677,710	407,018	11	7
1951	118	4,011,302	332,592	14	–
1952	129	4,085,018	71,716	14	3
1953	190	4,250,176	165,428	63	2
1954	246	4,415,430	164,954	59	3
1955	304	4,646,343	230,913	60	2
1956	397	4,831,677	185,334	100	7

We spend a major share of our time working with landowners in helping them develop tree farms, helping tree farmers find outlets for what they have to harvest and sell, helping them manage young stands by thinning, showing them how to reclaim problem areas, and stimulating interest in tree farming by public appearances, articles, and answering inquiries.

In 1956 we made a survey of the industrial tree farms to determine hunter use and total big-game harvest. Returns from 85 industrial tree farms, covering 4,462,943 acres, disclosed that 122,810 hunters bagged 10,950 deer, 1,409 elk, and 393 bear, or a total of 12,757 big game animals. Projecting these figures to the total acreage of industrial tree farms raises the big-game harvest to 13,530 animals and the total number of hunters to 130,250. Hunters caused nine forest fires, five more than in 1955—but this is still a good record considering the number of hunters.

Illustration of the recognition by tree farm owners that outdoor recreation is important in our region is the fact that by 1956 there were 30 tree-farm camping and picnic parks for public use. Tree farms furnish more than their important timber crop: they also provide watershed protection through good timber harvesting and protection and opportunities for hunting, fishing, camping, hiking, and picnicking—all at no expense to anyone except their owners.

In 1956 we made a woods' inspection of every industrial tree farm certified before January 1, 1955. Our district foresters spent a major part of four months visiting current operations, examining protection records, looking at plantations and natural second growth, thinnings, prelogging and relogging, and various problem areas. Where deficiencies were apparent, we called them to tree farmers' attention fearlessly and factually—all with an eye to helping them improve their practices.

During the year we also brought all tree-farm ownership records up to date, and compiled again, for the seventh consecutive year, performance data on industrial tree farms. The data are always one year behind, so those compiled are for 1955.

The data revealed another outstanding record of protection against fires with only 46 fires, burning over an area of 1,444 acres or an average of 31.4 acres per fire. This is 3/100 of 1 per cent of the nearly 4.5 million acres inspected. An all-time high was reached with the felling of 350,000 hazardous snags at an average cost of $1.77 apiece. Only 9,212 acres of slash were burned. This continues a downward trend of the last four years. Tree farmers constructed 148 miles of protection roads at an average cost of $1,330 per mile.

The average protection cost against fire was 47 cents per acre, up 1 cent over 1954. The average protection cost per acre for the last five years has varied between 46 cents and 48 cents.

In 1955 tree farms clearcut 31,736 acres, or 7/10 of 1 per cent of their total area. This is probably very close to the allowable cut of these managed properties. Partial cutting occurred on 5,839 acres, down 1,000 acres from 1954. Prelogging occurred on 3,519 acres, slightly down over 1954. Thinning of young stands occurred on 5,403 acres, reflecting more-intensive management of young timber.

Planting was down to 9,223 acres, or about the average for the last seven years. Its average cost was $20.13 per acre, or 66 cents per acre less than in 1954. Direct seeding of 3,463 acres was the highest since 1949. This reflects

improvement in rodent repellents and a better seed supply. It also indicates the importance of brush control as preliminary site preparation for successful seeding. Average seeding cost in 1955 was $11.58 per acre, down slightly from the year before.

The number of professional foresters managing tree farms continued to push upward, totalling 200 in 1955. Acreage per professional forester was reduced another 1,100 acres, or one for every 22,383 acres. There has been a drop in seven years from 36,000 to 22,000 acres per forester. My 1956 prediction that within ten years we'll have a professional forester for every 10,000 acres of tree farms will certainly come true if the present trend continues.

The tree-farm performance data (Table 2), covering a period of seven years, show some very definite forestry trends: (1) continued improvement of protection against fire, at leveled-off costs; (2) lesser slash burning, which reflects a reduced hazard of better utilization and a reduced risk of better protection; (3) greater snag removal, which reflects a recognition of snags as the worst of fire hazards; (4) more protection roads for prompt fire control; (5) clearcutting at a near-allowable cut level; (6) increased partial cutting as more mixed forest types are harvested; (7) more prelogging to increase the timber supply; (8) increased thinning for intensive management of young forests; (9) continued planting at a level limited by seed supply and nursery capacity; (10) revival of direct seeding, reflecting successful brush control, better rodent repellents, and adequate seed supply; (11) more professional foresters managing tree farms each year.

This report indicates tremendous progress in private forestry in the Douglas-fir region. It shows recognition of responsibility to our economy by forest landowners and the wood-using industry for wise management and use of their forest crops of wood, water, wildlife, and recreation.

The public too, because it is an important forest owner, must recognize its responsibilities for the good of all the people. Government forests in the Douglas-fir region occupy nearly half the commercial forest area. They have about 40 per cent of the timber-growing capacity, but are providing less than a quarter of the annual timber harvest. Our economy demands that they do their full share. Their managers want to do it, but Congress and the state legislatures set the policies and control the purse strings. Less consideration of partisan politics and more attention to the needs of our economy would do the trick.

Political forces are mounting which would destroy a portion of our economy if their program is adopted. Specifically, I refer to Congressional proposals which would permanently devote vast areas of public forests to single-purpose use by setting them aside as "wilderness areas", for the exclusive use of hikers and horsemen. Certainly there is a place in the use of our public lands for all sorts of outdoor recreation, but most of these lands should be managed under the multiple-use principle. Where there are opportunities for timber growing and harvesting, mining, grazing, power development, as well as recreation, such lands should be managed for all those uses. Our growing population needs more jobs and products. Multiple use is the clear answer.

Another kind of legislation is the punitive type which castigates all land users other than recreationists destroyers of watershed values. As professional foresters and thinking citizens know, good management of a forest for the growth and harvest of timber protects watershed values, furnishes habitat for wildlife, and provides opportunities for recreation. Our tree farms demonstrate this conclusively in the Douglas-fir region. And, besides providing an adequate water supply, hunting, fishing, and other recreation, they furnish jobs and payrolls which are basic to the region's economy, to say nothing of helping provide the American people with a great variety of forest products so necessary to their high standard of living.

A serious problem is the mounting pressure of increased local-government taxes on our young trees, as a source of additional revenue. Tax policy will determine whether we are to carry each tree through its most-rapid growth period and harvest it when it is financially mature, or whether we are going to continue cutting too many trees too soon, to the consequent detriment of our industry's timber supply and the region's economy.

It's pretty clear, at this stage in our forestry history, that we are going to do more planting, as timber-crop rotations become shorter, because our wood technicians can use smaller and smaller trees for high-grade products.

TABLE 2. SUMMARY OF DOUGLAS-FIR REGION INDUSTRIAL TREE FARM PERFORMANCE 1949-1955

	1949	*1950*	*1951*	*1952*	*1953*	*1954*	*1955*
Area of tree farms reporting, acres	3,257,334	3,500,617	3,779,956	4,077,021	4,168,261	4,273,857	4,476,694
Forest protection							
Fires, number	119	68	135	194	60	33	46
Area burned, acres	2,249.54	3,305.59	15,023.8	9,082.2	86.82	24.7	1,444.34
Av. area per fire, acres	18.9	48.6	111.3	46.8	1.4	.75	31.4
Per cent burn	.07	.09	.40	.22	.002	.0006	.03
Slash burned, acres	14,479	2,644	15,378	18,956	16,028	12,447	9,212
Snags felled, number	152,626	72,816	188,375	285,190	286,737	224,331	350,203
Av. cost per snag, dollars	$1.33	$1.75	$1.72	$1.53	$1.51	$1.68	$1.77
Fire roads constructed, miles	126.72	98.72	173.1	298.16	302.75	224.37	147.61
Av. cost per mile, dollars	$1,328.07	$633.77	$1,110.85	$795.97	$959.63	$1,371.31	$1,389.89
Av. fire protection cost per acre, dollars	$0.31	$0.35	$0.16	$0.18	$0.17	$0.16	$0.17
Forest harvesting:							
Clearcutting, acres	21,203	21,153	29,115	27,027	28,360	26,528	31,736
Clearcut area with adequate seed source reserved, acres	20,556	20,662	27,212	25,123	27,301	25,551	27,863
Partial cutting, acres	3,049	821	1,392	3,097	4,886	6,810	5,839
Prelogging, acres	1,218	715.5	1,979	1,687	1,997	3,779	3,519
Intermediate cutting, acres	765	713	1,739	3,056	3,575	4,927	5,408
Artificial reforestation:							
Planting, acres	10,590.7	8,276	8,558.5	9,210	11,257	11,617.2	9,222.7
Av. cost per acre, dollars	$15.21	$17.03	$18.16	$19.64	$19.99	$21.09	$20.13
Seeding, acres	1,201.1	2,638	2,249	268	233	116	3,162.6
Av. cost per acre, dollars	$5.30	$5.56	$6.91	$10.33	$9.68	$12.00	$11.58
Forestry organization:							
Preprofessional foresters, number	90	121	119	165	169	182	200
Others, number	151	153	177	175	167	162	221
Acres per professional forester	36,193	28,931	25,369	24,709	24,664	23,183	22,383

The crying need for the planting program is for more-economical and successful methods. This means mechanization. It is realized that mechanical planting in our region is difficult because of rough ground and debris. However, research foresters and engineers should get busy on this problem without delay.

Another serious problem facing our industry, as well as our public forest agencies, is the shortage of trained foresters. Recognizing this as a major problem, we have for several years been making appearances in many high schools of the region to interest young men in forestry as a career. This spring we will publish a booklet for high schools in western Oregon and Washington, which will show young men the opportunities in forestry, what attributes make a good forester, what a forester does, where training can be obtained, and how more information on the forestry profession can be secured.

As our region becomes more mature, and we must provide more jobs for our rising population, there must be further diversification in the manufacture of wood. Our industry is spending great sums each year in attempting to learn the secrets of how to take wood apart and rebuild it. The problem is not one of timber supply: we still have mountains of unused wood left over from present manufacturing operations which, if converted to new products in competition with other materials and other forest regions, can provide an increasing number of secondary wood-using industries and additional employment. More research by everyone competent to do it is needed.

One great prospect on the horizon to improve our forestry is a long-term program of forest-tree improvement through application of the principles of genetics. The possibility of insect- and disease-resistant trees, trees with built-in technical properties for our various forest products, captures the imagination. The possibility of artificial pollination to induce more-frequent natural seed crops of our coniferous species holds promise. The fact that we have an average of only two good seed crops per decade has been one of our problems in both natural and artificial reforestation. If pollen can be collected, stored, and disseminated by airplane or helicopter to insure fertilization of female flowers in years when rain washes the natural pollen to the ground, it may be that we can have more frequent good seed crops.

Experiments thus far indicate that cone production can be increased by fertilizing young trees. Large agricultural fertilizer surpluses are now available at relatively low cost. There is no reason in the world why trees, just like other plants, shouldn't react favorably to the right fertilizer.

Another good prospect for the future is the capture of a further wood supply for which there is now no economic use—the tops and larger limbs left following timber harvest. Such wood is generally sound, although often rough and pitchy. It could make useful chips. How to get it out of the woods economically is the question. Portable barkers and chippers come to mind. Development of such equipment is now in progress. Within five years I predict it will be common in our woods.

A possibility for assuring better success of tree planting is the use of systemic materials injected into trees through the soil in the nursery to protect them from rabbits, deer, and other wild animals. Repellents used now on nursery stock are good, but are not effective beyond the planting season, because the new growth following planting is untreated. Research in this field is progressing and offers promise.

Another wild-animal problem is both natural and planted young forests is overpopulation of deer. One answer is to reduce the deer herds to the carrying capacity of the range by means of either-sex seasons. This is a tough political problem because most hunters are basically opposed to "shooting mothers." However, in the last several years there has been strong support from game-commission biologists for either-sex seasons. Where conducted, they have effectively reduced the deer population to the amount their natural food supply will stand. This, of course, safeguards the coniferous trees which at best furnish only starvation diet for deer.

Tree farming has become a vitally important economic activity in our region—it is the best assurance we have of a future. Producing annually, as we now do, $570 worth of forest products for every man, woman, and child in our region, it is clear that an adequate timber supply is the main essential for a continuation of our high economy. Forestry has become a way of life in our region. There is no doubt that we will continue to make more progress each year. It has been said "that the future belongs to those who prepare for it." We are preparing by tree farming.

Distributive Education Offers Help to Small Business

By JOHN B. POPE

Acting Director, Distributive Education Branch, U.S. Office of Education

The value of distributive education to businessmen is highlighted by the following typical scene: The owner of a small store says to his wholesaler, "Sure we had a good year last year. But unless I can work out some way of getting more properly trained people, it's going to be tougher to compete next year. The worst of it is that I can't do the training myself and my firm can't afford an organized training setup. I don't know what can be done!"

"We're facing a similar situation," replies the wholesaler. "I'd like to move some of my men into supervisory jobs, but they're not ready yet—and they're not getting ready. The big hurdle is the lack of practical knowledge. We don't have the the staff to teach it. I haven't figured out the answer either."

Similar conversations occur again and again among small business owners all across the country. Fortunately, there is a solution which increasing numbers of businessmen are finding: distributive education. Distributive education can help materially because of the variety of its services. It can provide—without fees, or at a fee so low that virtually anyone can afford it—any or all of the following kinds of assistance: instruction, both high school and adult; individualized consulation; specialized clinics or institutes; selection and dissemination of current distributive information.

Distributive-education instruction is set up for two general classes of students: part-time students in regularly organized classes in high school, and adults already holding jobs in business.

Teachers of high-school classes are employed by the local

school authority. They are selected on the basis of their training and practical experience in the field of distribution. As a result, many of them have not only rich practical backgrounds in retail or wholesale businesses, but also have the confidence and friendship of the business community. Such instructors, assigned beginning student-workers for training, usually possess broad, general experience and training, while those who teach adults are normally skilled specialists in a given business function or field of distribution.

The purpose of the high-school program is to fit individuals of school age for jobs in distributive occupations.

The customary schedule includes classes in the morning and work on the job in the afternoon. This arrangement provides for study of subjects directly related to employment for an hour a day for two years, or two hours a day for one year. (The remainder of a typical morning is devoted to other high-school subjects). In the afternoon, the student checks in for actual work in a distributive firm. During three hours or more each day, he works at his job. His class work supplies him with information and techniques to do that job better.

For his on-the-job duties, the student is employed, say, in a retail store. The store pays him the going wage paid to other employees of the same training and experience. Each student is put under a "training sponsor"—a regular employee of the firm—who works with the student and helps him to acquire the required skills. Naturally, each student must comply with existing employment conditions in the store. Consequently, students are often employed under a "training memorandum." This serves as a set of ground rules for the school, the store, the student, the instructor, and the training sponsor. In this way, each student is assured fair treatment and an opportunity for good grounding in the particular business.

Students earn from $600 to $1500 per year in the program. The precise earnings, of course, depend largely on the pay scale and number of hours of actual work.

The more efficient you and your employees are, the stronger and more efficient will be your organization. In this connection, adult distributive education training—often called "extension training" because it extends training beyond the high-school years—has two objectives: To improve the effectiveness of people in the field of distribution (and hence distribution itself by training the people who provide it), and to improve management knowledge and skills in distributive concerns.

To accomplish these results, distributive-education people seek advice from businessmen and professional people working with them. Courses are not set up in a vacuum. They are organized with the help of businesses.

Many courses, once established, continue year after year and become part of a community's regular service in adult education.

Two broad classes of subject matter are made available through these courses: (1) general, where the material applies to virtually any sort of retailing, wholesaling, or manufacturing concern; and (2) specialized, where the material is designed for particular types of firms such as those in hardware retailing or petroleum wholesaling.

The Small Business Administration co-sponsors certain of the management-type courses organized by distributive education supervisors in local schools. The distinguishing features of these cosponsored courses are that they are: (1) short courses in administrative management; (2) designed specifically for owners and managers of small businesses; (3) intended to help the small business operator improve his knowledge of business administration; and (4) keyed to promote a clearer understanding of management policy in organizing, staffing, planning, directing, and controlling the individual business enterprise.

The educational institutions which conduct the courses assume educational and financial responsibility. Typically, the classes meet one evening a week for a period of eight to ten weeks, with each session running from two to three hours. There are, of course, some variations. Several have met twice a week over a shorter period. Others have been held late in the afternoon, continuing through the evening with a dinner session included.

CURRENT BUSINESS TRENDS IN OREGON

Lumber. June 1957 lumber production in the Douglas-fir region of the Pacific Northwest continued at about the 1952-1956 average. There was very little change from either May 1957 or June 1956. The figures shown below are supplied by the West Coast Lumbermen's Association and are in thousands of feet, board measure:

	June 1957	*May 1957*	*June 1956*
Average weekly production	183,747	181,011	182,683
Average weekly orders	181,882	192,381	165,830
Unfilled orders, end of month	647,071	678,556	623,696
Lumber inventory, end of month	1,171,883	1,225,276	953,889

Department-Store Sales. The only retail sales indicator for Oregon is the sales of department stores in Portland, a series which is computed by the Federal Reserve Bank of San Francisco. The percentage of dollar sales volume for the period ending July 6, 1957, as compared with the same period a year ago, for Portland and other Pacific Coast cities is shown below:

	Week Ending July 6, 1957	*Four Weeks Ending July 6, 1957*	*Calendar Year to July 6, 1957*
Portland	−11	−8	0
Los Angeles	+ 5	+5	+2
San Francisco Bay	0	0	0
Seattle	− 8	−2	0
United States	+ 4	+3	+2

Business Failures. Dun and Bradstreet's series showing commercial failures is frequently considered an indicator of business health. Figures for Oregon are given below:

	1956		*1957*	
	Number	*Liabilities*	*Number*	*Liabilities*
Jan.	13	$ 421,000	36	$ 908,000
Feb.	7	1,231,000	32	1,252,000
Mar.	13	1,257,000	33	735,000
Apr.	13	604,000	37	1,516,000
May	21	365,000	31	523,000
June	30	593,000	42	1,637,000
July	17	531,000	—	—
Aug.	40	1,016,000	—	—
Sept.	22	501,000	—	—
Oct.	37	3,202,000	—	—
Nov.	25	671,000	—	—
Dec.	41	882,000	—	—

Index of Man Hours in Manufacturing. One of the best indicators showing changes in manufacturing activity is the man hours of industrial production workers. These figures apply only to personnel engaged in direct manufacturing activities; sales, office, and general administrative employees are excluded. The index is derived by the Bureau of Business Research from data supplied by the Oregon Unemployment Compensation Commission. The most recent reading covers the month of June 1957. (No adjustment for seasonal variation has been made. 1951 = 100.)

	1956	*1957*		*1956*	*1957*
Jan.	84.1	78.6	July	105.1	—
Feb.	84.2	78.9	Aug.	113.6	—
Mar.	84.1	78.8	Sept.	108.7	—
April	93.4	85.0	Oct.	99.8	—
May	90.6	92.2	Nov.	91.7	—
June	107.1	100.8	Dec.	84.1	—

CURRENT BUSINESS TRENDS IN OREGON

Employment. The number of nonagricultural workers in Oregon increased 3.0 per cent (14,500) between mid-May 1957 and mid-June 1957. The largest gains were in the fields of canning and preserving (6,700), lumber and wood products (2,600), and contract construction (1,400). There were no substantial declines. Employment in nonagricultural industries decreased 1.5 per cent from mid-June 1956. More detailed figures from the Oregon State Unemployment Compensation Commission follow:

	June 1957	*May 1957*	*June 1956*
Lumber & wood products	80,800	78,200	89,000
Food & kindred products	22,200	15,500	21,900
Other manufacturing	47,200	46,900	48,600
Total manufacturing	150,200	140,600	162,500
Contract construction	25,100	21,000	26,100
Retail trade	81,600	83,900	83,700
Government	82,700	83,200	79,300
Other nonmanufacturing	162,100	158,800	161,000
Total nonmanufacturing	351,800	349,900	350,100
Total nonagricultural employment	505,000	490,500	512,900

Construction. The University of Oregon Bureau of Business Research, in cooperation with the F. W. Dodge Corporation, reports May 1957 construction contracts in Oregon amounted to $25,744,000, an increase of one-fourth over the preceding month. Comparative data in thousands of dollars follow:

	May 1957	*Apr. 1957*
Nonresidential	$ 6,016	$7,822
Residential	8,995	7,500
Public works & utilities	10,733	5,077
	$25,744	$20,399

The nonresidential construction involved 514,000 square feet in May 1957 and 851,000 square feet in April. The 724 residential units for which contracts were made in May involved 937,000 square feet, while in April the figure was 779,000 square feet for 602 units. During the first five months of 957, the value of building contracts in Oregon was down 20 per cent compared to the same period in 1956. For the eleven western states the cumulative total was up 6 per cent, and for the United States it was up 4 per cent.

Life-Insurance Sales. During May 1957 sales of ordinary life insurance in Oregon (excluding industrial life insurance, group and wholesale sales under new contract, renewals, dividend additions, etc.) were 0.7 per cent ($209,000) higher than in April 1957 and 3.0 per cent higher than in May 1956. The national figures showed a 5.9 per cent increase in comparison with April 1957 and a 33 per cent increase in comparison with May 1956.

Multnomah County Real-Estate Transactions. During June 1957 there were 854 real-estate sales amounting to $9,191,955 in Multnomah County. Of these, 651 involved residences, the sales price of which was $6,826,413; 151 were vacant properties, $950,427; and 52 were business properties, $1,715,115. Additional figures are:

	June 1957	*May 1957*	*June 1956*
Number of sales	854	1,114	1,032
Values of sales	$9,491,955	$11,119,052	$11,294,147
Number of mortgages	793	742	1,055
Amount loaned	$8,529,795	$6,253,120	$10,004,450
Number of sheriff's deeds	1	3	4
Amount of sheriff's deeds	$ 8,265	$17,192	$21,060
Average residential selling price	$10,486	$10,091	$10,510

BANK DEBITS

Bank debits represent the dollar value of checks drawn against the deposit accounts of individuals and business firms. Bank debits are regarded as good indicators of current business activity, although their value for this purpose may be impaired by the inclusion of large checks arising out of transfers of funds for the purchase of certain types of capital assets that do not constitute "business activity." The Bureau of Business Research collects bank debits from 166 banks and branches monthly.

Marketing Districts	*Number of Banks Reporting*	*Debits June 1957*	*Debits May 1957*	*Debits June 1956*	*June 1957 Compared with May 1957*	*June 1957 Compared with June 1956*
Oregon	165	$1,602,012,365	$1,675,346,772	$1,678,605,622	− 4.4	− 4.6
Portland (Portland, Hillsboro, Oregon City, etc.)	53	1,057,251,825	1,114,677,639	1,039,973,786	− 5.2	+ 1.7
Lower Willamette Valley (Salem, McMinnville, etc.)	25	124,839,976	131,463,821	138,232,900	− 5.0	− 9.7
Upper Willamette Valley (Albany, Corvallis, Eugene, etc.)	22	137,666,929	146,031,140	157,019,178	− 5.8	−12.4
North Oregon Coast (Astoria, Tillamook, etc.)	7	24,432,092	22,974,712	27,693,761	+ 6.3	−11.8
Douglas, Coos, Curry counties	11	55,427,811	51,993,481	62,277,652	+ 0.8	−11.0
Southern Oregon (Ashland, Grants Pass, Medford)	8	62,179,219	61,361,612	67,473,116	+ 1.3	− 7.8
Upper Columbia River (The Dalles, Hood River, etc.)	9	25,025,558	24,623,333	27,520,026	+ 1.6	− 9.1
Pendleton area	8	27,962,736	29,997,339	28,631,312	− 6.8	− 2.4
Central Oregon (Bend, Prineville, Redmond, etc.)	5	25,283,908	24,672,141	27,145,518	+ 2.5	− 6.9
Klamath Falls, Lakeview area	5	26,760,309	26,096,965	31,282,753	+ 2.5	−21.9
Baker, La Grande area	7	17,474,589	19,565,895	20,344,539	−10.7	−14.1
Burns, Ontario, Nyssa area	5	17,696,483	19,035,640	18,063,311	− 7.0	− 1.7

BUILDING PERMITS

Building permits give an indication of building operations planned rather than actual construction under way. Care must be taken in interpreting these data to allow for the lag which may elapse between the issuance of the permit and the beginning of actual construction. The data have been collected by the Bureau of Business Research.

	New Residential June 1957	*New Nonresidential June 1957*	*Additions, Alterations & Repairs June 1957*	*Totals June 1957*	*Totals May 1957*	*Totals June 1956*
Albany	$ 51,000	$ 13,000	$ 25,900	$ 92,900	$ 175,300	$ 143,200
Baker	119,700	21,500	13,395	154,595	10,590	59,810
Bend	90,000	11,191	8,800	109,991	258,100	81,880
Coos Bay	10,500	.....	5,915	16,415	30,190	78,875
Corvallis	92,500	500	163,791	256,791	309,928	1,320,020
Eugene	242,520	534,377	124,698	901,595	351,470	428,527
Grants Pass	47,100	11,195	41,100	99,695	92,150	212,575
Hillsboro	59,600	1,100	7,725	67,825	568,750	89,995
Klamath Falls	53,600	.....	91,056	144,656	145,075	385,270
La Grande	26,000	800	.....	26,800	6,875	30,245
McMinnville	130,000	6,850	16,500	153,350	75,706	93,265
Medford	205,000	3,700	12,990	250,700	441,925	580,415
North Bend	25,250	6,610	38,900	70,830	80,673	49,569
Pendleton	19,000	1,000	21,135	77,135	121,409	76,355
Portland	257,150	2,360,350	1,211,630	3,859,630	2,393,115	4,467,415
Roseburg	37,200	.....	6,100	43,600	57,922	91,338
Salem	59,100	130,175	60,999	250,274	111,578	563,178
Springfield	.....	5,850	11,345	17,195	201,665	98,953
The Dalles	.....	53,000	1,600	54,600	45,320	91,102
Lane County	353,097	362,333	74,681	790,276	726,115	1,112,160
Multnomah County	1,179,570	616,300	106,340	2,195,120	3,320,511	2,678,963
Wasco County	.....	.....	13,100	13,100	46,800	40,564
46 other communities	628,995	1,135,185	181,699	2,215,879	1,931,598	4,528,699
Totals	$1,010,192	$5,520,901	$2,302,379	$11,833,172	$12,772,326	$17,321,118